CROWELL & MORING

1001 PENNSYLVANIA AVENUE, N.W. WASHINGTON, D.C. 20004-2595

(202) 624-2500

CABLE: CROMOR
FACSIMILE (RAPICOM): 202-628-5116
W. U. I. (INTERNATIONAL) 64344
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SUMMARY

Elimination of the ITFS per channel programming requirements would constitute a <u>de facto</u> reallocation of the ITFS spectrum to commercial MDS. Such action is inconsistent with the purpose of ITFS as an educational, instructional service and, because the reallocation would occur at the discretion of licensees, an impermissible abdication of the Commission's responsibilities under the Communications Act of 1934. Therefore, The Trustees of Leland Stanford Junior University and Trans Video Communications, Inc. ("TVC") oppose the Commission's proposal to modify the ITFS channel use requirements to permit "channel loading."

For thirty years, the Commission has allocated the ITFS frequencies for an instructional, educational service. Channel loading would allow ITFS licensees to lease up to 75% of their frequencies for commercial entertainment programming, thus depriving the public of the instructional use of those channels. As the Commission has previously recognized, this practice is inconsistent with the allocation for ITFS.

Channel loading is also inconsistent with ITFS service.

Under the Commission's proposed modifications, an ITFS licensee would be required to transmit 80 hours a week of instructional programming on one channel. However, the available programming day for most educational institutions is from about 8:00 a.m. to 4:00 p.m., which makes an 80-hour week impracticable.

Leasing three of four channels also destroys the ability of ITFS operators to transmit a variety of programming simultaneously as the Commission intended. The potential use of video recording

equipment for playback of ITFS programming does not support the proposal. ITFS is an interactive service; taped programming is not. Moreover, tape libraries can be created by means other than ITFS, and so, an ITFS license is not needed.

Channel loading would also be detrimental to the intended beneficiaries of ITFS. Students would be deprived of "distance learning" through an interactive, instructional medium. Speculative applications primarily for lease arrangements may tie up ITFS spectrum, precluding expansion by existing licensees to provide more programming and limiting the availability of spectrum for new primarily instructional systems.

The Commission has twice rejected the use of channel loading for the same reasons outlined above. The premise of the current proposal that channel loading should be allowed as the equivalent of channel mapping is erroneous. Channel mapping allows an MDS lessee to switch its programming to a vacant channel but does not affect an ITFS operators' use of four channels in accordance with the per channel programming requirements, nor the ability of an ITFS operator to schedule its instructional programming at times for interactive use. In contrast, channel loading cannot be accommodated without elimination of the current per channel programming requirements.

Given the detrimental effects of the proposal, the Commission should not modify the ITFS rules to permit channel loading. In the event that it does, Stanford and TVC recommend that restrictions be placed upon the practice to protect the instructional benefits of ITFS.

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commitment to ITFS without valid justification and deprive the public of the beneficial opportunities available from "distance learning," for which the ITFS spectrum was specifically allocated. Accordingly, for these and the reasons outlined below, the Commission should reject the proposed modifications to the rules governing ITFS.

I. AS ITFS LICENSEES, TVC AND STANFORD HAVE A SUBSTANTIAL INTEREST IN THE PROPOSED RULE CHANGES.

Trans Video Communications, Inc. ("TVC"), wholly owned by the Roman Catholic Diocese of Brooklyn, provides "distance learning" and other communications services for the Diocese. Through KNZ-69 (B-Channels), Brooklyn, and other ITFS facilities, TVC delivers instructional programming to approximately 70,000 students at over 200 schools in the Brooklyn/Queens area. TVC has been providing such service to diocesan schools, hospitals, nursing homes and other schools in the area for almost 30 years. TVC is linked to 17 other ITFS Catholic Dioceses and, via the Catholic Telecommunications Network of America, downlinked to 100 other dioceses. TVC and the Diocese are greatly concerned by any action which could lead to the elimination of the instructional programming requirements for ITFS channels. 1/

Stanford has been licensed to operate an ITFS system on Channels E1-4 (KGG-38) in the San Francisco Bay Area for almost 25

As noted in the Commission's <u>Notice of Proposed Rule Making</u> (Appendix), TVC filed comments on the Commission's initial inquiry into "channel loading," opposing the Spokane permittee's requests for waiver of the ITFS channel use requirements.

years. Stanford's instructional television network now transmits over 250 courses per year in various subject areas, including, for example, engineering, computer science, math, applied physics and statistics, for primarily graduate coursework, to approximately 3,500 students enrolled in the University. In addition, approximately 3,500 students receive courses on a non-credit basis. These courses are transmitted on a one-way video, two-way audio interactive basis. Stanford's ITFS network operates 12 hours a day, Monday through Friday.

Stanford's instructional programming is transmitted to numerous receiving and response sites, including research centers with which the University is affiliated and the facilities of major corporations and research institutions in the San Francisco Bay Area, including, for example, Hewlett-Packard Company, Apple Computer, Inc., Chevron Oil Company, IBM, the NASA-Ames Research Center, and the Lawrence Livermore Laboratory. Employees of these institutions and corporations enroll in Stanford's courses as fully matriculated graduate students, non-registered graduate students or auditors.

II. ADOPTION OF THE PROPOSED RULES WOULD VIOLATE THE COMMUNICATIONS ACT AND CONSTITUTE A DE FACTO REALLOCATION OF ITFS SPECTRUM.

As the Commission recognizes, the proposed modifications to Sections 74.931(a) and 74.931(e)(2) of its Rules implicate whether and to what extent the Commission wants to or "can preserve the

	primary purpose of ITFS." Notice of Proposed Rule Making, FCC 93-
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instructional programming (80 hours) as currently required by Section 74.931(e)(2).

This proposal is contrary to the instructional purpose for which the ITFS spectrum is allocated. For thirty years, the Commission has committed a relatively small segment of the radio spectrum to distribution of instructional programming. Educational Television, 39 FCC 846 (1963), recon. denied, 39 FCC 873 (1964). Throughout this period, the express purpose of the allocation was "to provide for the licensing of transmitting facilities to send visual and accompanying aural instructional material to selected receiving locations in accredited public and private schools, colleges and universities for the formal education of Students." Id. at 852-53. The Commission has continued to cite the instructional purpose of ITFS during more recent changes in the rules governing use of the frequencies. See, e.g., Instructional Television Fixed Service, 101 FCC 2d 49, 78, 81 (1985) ("The ITFS spectrum is primarily intended for the transmission of formal education for schools"; "formal education is the cornerstone of the ITFS service"), recon. denied, 59 RR 2d 1355 (1986), vacated in part sub nom. Telecommunications Research & Action Center v. FCC, 836 F.2d 1349 (D.C. Cir. 1988); Notice of Proposed Rule Making and Notice of Inquiry, 5 FCC Rcd 971, ¶ 5 (1990) (noting the Commission's "continued belief in the critical importance of education, and the significant role that ITFS can play in providing improved educational opportunities for all").

Under the Commission's "channel loading" proposal, up to three leased channels would not serve the public in the

educational, instructional manner for which the frequencies are explicitly licensed. The channels would be reassigned to provide a commercial entertainment service, operated and funded by commercial video service providers, resulting in up to 15 of the 20 ITFS channels in each community being withdrawn from (albeit sub rosa) the ITFS spectrum reservation. This subterfuge could not be more inconsistent with the purpose of the ITFS allocation as the Commission itself has recognized. See Wireless Cable Order, 5 FCC Rcd 6410, 6416 (1990) (allowing use of ITFS spectrum to provide financial support by relaxing channel usage requirements "would amount to a de facto reallocation of the spectrum"), modified on recon., 6 FCC Rcd 6764 (1991).

B. The Proposed Rules Are Inconsistent with the Use of the Frequencies by ITFS Eliqible Entities.

The Commission must also question whether the primary interest of applicants proposing a programming schedule consistent with the proposed rules (80 hours of instructional programming per week on one channel) lies in providing the instructional programming service for which the frequencies are allocated. A true "instructional" facility cannot provide 80 hours a week of programming over one channel. The differing needs and schedules of the audience of an ITFS station preclude such a schedule, as the Commission recognized in allotting four channels for each ITFS licensee. See Educational Television, 39 FCC at 846, ¶ 2 ("Most instructional TV systems will require more than one channel so that teaching material in several subjects may be transmitted simultaneously") (emphasis supplied).

Most ITFS eligible entities typically provide instruction to students during about 40 hours of each week. See Instructional Television Fixed Service, 101 FCC 2d at 86. Simultaneous transmissions over four channels allow a licensee to deliver programming to diverse groups of interests and educational levels during this time period. Transmitting 80 hours a week over one channel would require a 16-hour programming day Monday through Friday. Unless the licensee provides instructional services during the evening hours, or has the capability to record programming at night for playback during the day, then using one channel to fulfill the 80-hour programming schedule is both impracticable 2/ and not responsive to the needs of students and others for interactive instruction. 3/

In any event, a 16-hour programming day, with extensive taping, was certainly not what the Commission intended for the ITFS allocation. Indeed, three years ago, the Commission pointed

ITFS applicants who commit to lease three channels leaving only one channel available for instructional programming may find after construction that such a facility is not practical for instructional purposes. The equipment necessary for nightly recording of programming and playback during school hours is relatively expensive, and extensive equipment purchases may be necessary to meet the minimum programming requirements. Moreover, use of only one channel makes it difficult to integrate instructional television service into

out that those who suggested "that an ITFS licensee [should] be able to consolidate its educational usage on a single channel and lease remaining channels in their entirety" suffered from a "misperception" about the purpose of the ITFS allocation.

Wireless Cable Order, 5 FCC Rcd at 6416.

The Commission has also previously recognized that if a school proposes use of video recording to capture ITFS transmissions, it would have difficulty demonstrating a need to be licensed on four ITFS channels. See 47 C.F.R. § 74.902(d) (number of authorized ITFS channels is based on demonstration of need). Videotapes of instructional programming could simply be ordered or rented without installation of transmitting and receive equipment. "[L]ibraries for such taped presentation of material can be readily assembled without the use of ITFS facilities, and such usage, standing alone, appears unredeemably wasteful of the spectrum." Wireless Cable Order, 5 FCC Rcd at 6416 (footnote omitted). "The per channel requirement is based on the premise that ITFS applicants should request only those facilities they need to fulfill their educational mission. . . . " Id.

C. The Commission Has Conceded That the Proposed Modifications Are Impermissible under the Act.

In its 1990 Report and Order adopting modifications to the rules governing MDS, ITFS and OFS, the Commission rejected exactly those arguments which it now advances in the Notice as inconsistent with the Communications Act. The Wireless Cable Association had contended that the minimum channel use requirements for ITFS should be lifted "and ITFS licensees be

permitted to lease their entire capacity if they believe that the revenues derived from leasing are more valuable than the transmission capacity." Wireless Cable Order, 5 FCC Rcd at 6416. The Commission pointed out that this argument "favoring any use of the [ITFS] spectrum that provides financial support as within the ambit of the allocations is fundamentally flawed, however beneficial such financial support for educational institutions may be because:

Such action would amount to a <u>de facto</u> reallocation of the spectrum, and the reallocation decision would be made in each case by an individual licensee on the basis of its own self-interest. In view of the current allocation, this effectively amounts to an abdication of the Commission's responsibility and a violation of the Communications Act.

Now, scarcely three years later, the Commission has proposed to relax the same minimum channel use requirements to allow leasing at an individual licensee's discretion of 75 percent of its airtime based on an alleged "current needs of ITFS licensees for funding" (¶ 15). The Commission has not proposed any change in the allocation to ITFS, but rather to allow individual licensees to decide whether each channel should be used in accordance with that allocation. Accordingly, the Commission must reject now as it did three years ago the proposed relaxation of minimum channel use requirements as a violation of the Communications Act.

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only one channel significantly limits the capacity of the system to provide the instructional service as intended by the Commission.

For example, during a typical <u>hour</u> on the Stanford

Instructional Television Network, there may be separate classes offered in aeronautics, mechanical engineering, electrical engineering and computer science -- each on a different channel.

By transmitting courses on four channels simultaneously, Stanford offers students a variety of courses on a flexible schedule. To attempt to provide this diversity on just one channel -- even during 16 hours of transmission -- would severely curtail the usefulness of the service provided by SITN to students enrolled in credit courses in the University.

B. The Proposed Rules Would Thwart Growth of ITFS as an Educational Service.

The Commission is already receiving numerous ITFS applications financed by MDS operators, and it is likely to receive even more such applications if it eliminates the current minimum channel use requirements. If granted, these applications for primarily leased time operations would limit the potential growth of existing and new ITFS stations which could be used primarily for instructional purposes.

In urban areas where the ITFS frequencies are already congested, such as New York and San Francisco, the proposed rules may tie up channels through leasing which might otherwise become available through attrition. Current licensees which could program additional channels would be deprived of the opportunity

to provide expanded service. ITFS frequencies in non-urban areas are even now frequently applied for in 20-channel blocks by MDS-backed applicants. If this trend continues, fostered by the proposed rule changes, the frequencies would not be available for an ITFS applicant which could use four channels for instructional purposes. 4/

IV. THE EXPRESS RATIONALE FOR THE ELIMINATION OF CHANNEL USE REQUIREMENTS DOES NOT JUSTIFY THE HARM TO ITFS.

In the Commission's own words, guidelines for the provision of instructional programming -- as opposed to entertainment programming -- are necessary "in order to preserve the essential nature of the service." <u>Instructional Television Fixed Service</u>, 101 FCC 2d at 80. "A minimum 'substantial use' for ITFS service . . . is an elementary necessity to guarantee the intended use of ITFS channels in the face of the revenue-generating uses which will also be permitted." <u>Id</u>. at 85.

In this regard, the Commission has already twice rejected use of channel loading based on the same arguments that it is now advancing to justify elimination of minimum channel use requirements. Ten years ago, the MDS industry argued "that MDS support of ITFS depends critically on the licensees' freedom to devote an entire channel to compete with 24-hour video entertainment services," 101 FCC 2d at 84, and the Commission

In both rural and urban areas, the leasing of three channels by commercial entities may also impede development of the Administration's proposed "information highway." If jammed with commercial entertainment, the three leased channels could not link students, classrooms, and schools to other classrooms and information networks around the country.

found that "[n]o compelling reason has been advanced to permit extreme day-loading or channel loading," id. at 87.

Three years ago, the Commission again rejected the wireless cable industry's arguments noting "we believe that the [excess capacity leasing] restrictions are an important safeguard to ensure that ITFS channels remain primarily dedicated to the purpose for which they were allocated -- presentation of educational material for instructional use." Wireless Cable Order, 5 FCC Rcd at 6415 (footnote omitted).

In contradiction to these prior findings, the Notice proposes elimination of the minimum channel use requirements in favor of the "revenue-generating" aspects of ITFS leasing. While the Commission assumes that leasing will provide financing for construction of ITFS facilities, it has presented no evidence that ITFS facilities have actually been constructed through such financing. At the least, before the Commission eliminates the minimum channel use requirements for ITFS, it must have before it evidence -- not merely promises of MDS operators -- that "channel loading" will result in the construction of ITFS facilities.

In order to justify the proposed modifications without any evidence of their benefit to ITFS, the Commission erroneously suggests that "channel loading" is functionally equivalent to "channel mapping." Notice, ¶¶ 14-15. Channel mapping allows an ITFS operator and MDS lessee to present at receive sites, as though on a single channel, programming which is in fact staggered over four channels. See Wireless Cable Order (Reconsideration Order), 6 FCC Rcd 6764, 6774 (1991). Channel mapping is thus a

technology which does not affect an ITFS operators' use of four channels in accordance with the minimum use requirements; nor does it affect the ability of an ITFS operator to schedule its instructional programming to meet the needs of its students.

On the other hand, channel loading locks an ITFS licensee into using only one channel. In order to meet the minimum use requirements, the ITFS operator must transmit programming at hours outside the typical school day, making it difficult to use the ITFS facility as an instructional tool without also employing costly -- and less effective for instruction -- video recording equipment. Thus, channel mapping and channel loading are obviously not equivalent. 5/

V. IF THE COMMISSION PERMITS CHANNEL LOADING, THEN IT SHOULD IMPOSE LIMITATIONS ON ITS USE BY ITFS LICENSEES.

While TVC and Stanford believe it is not in the public interest, assuming that the Commission finds channel loading in the public interest as its Notice indicates it already intends to do, then it should place restrictions upon licensees which propose

- 1. Channel Leasing. If an ITFS licensee is permitted to lease channels on a 24-hour-a-day basis, then in a four channel system, only one channel should be permitted to be leased for 24 hours. Such a compromise would retain the essential service parameters of ITFS, i.e., to provide multiple, simultaneous transmissions during the basic school day, but still allow an ITFS licensee to obtain significant financing. Leased time could then include one channel as well as excess capacity on the other three channels. Leasing for 24 hours any additional channels would improperly foster the wholesale commercial exploitation of spectrum reserved for instructional purposes.
- 2. Hour of Day Requirements. Requiring minimum programming levels during specific hours of the day would help ensure that the frequencies are used for true educational purposes. However, a 6 AM to 10 PM ITFS programming day cannot provide an adequate accommodation for a typical school's needs, because school hours generally range from 8 AM to 4 PM. Accordingly, hour of day requirements for ITFS programming should be applied to ITFS licensees proposing to lease certain channels for 24 hours a day, such as, for example, within the 8 AM through 5 PM time period, Monday through Friday. Even with such a requirement, a licensee could easily transmit 80 hours of programming in a single week over three channels at times appropriate for in-class use.
- 3. Recapture Rights. All ITFS program hours should be subject to recapture with no more than six months' notice. This notice period would allow a school system to plan its ITFS programming on a semester by semester basis.

- 4. Comparative Advantage. An ITFS applicant proposing to use ITFS channels primarily for instructional programming should receive a preference over applicants which propose substantial leased transmissions. This would reinforce the use of the ITFS spectrum for instructional purposes and deter speculative applications. For example, in the ITFS tie-breaker procedure (47 C.F.R. § 74.913(d)), the Commission could award one point for each channel which is proposed for ITFS programming for a minimum of five hours each day.
- 5. <u>Demonstration of Educational Intent.</u> If the Commission proposes to license applicants for ITFS frequencies which can lease a substantial portion of their programming day to other entities for commercial purposes, then it certainly must require the applicant to present a "heightened demonstration" of its educational intent.

The Commission's ITFS leasing rules were designed to place limits on leasing which would prevent authorization of entities not intending to use the facilities for ITFS purposes. See Instructional Television Fixed Service, 98 FCC 2d 129, 136-37 (1984). Routine grant of licenses to entities proposing lease of three complete channels would encourage non-ITFS eligibles and MDS speculators to devise means to apply for ITFS spectrum. Accordingly, the Commission should require a more detailed demonstration of an ITFS applicant's educational purpose, including some specific evidence that the ITFS applicant can use the full four channels for educational purposes at some time in the future and with relative ease.

6. <u>Interference Protection</u>. The current procedure of protecting ITFS receive sites should be retained, and the Commission should continue to provide leased operations on ITFS frequencies with a 15-mile protected service area. To alter the current interference protection arrangement would create havoc for some ITFS facilities. For example, because ITFS frequencies are interleaved with the neighboring frequency groups, it would be difficult to administer protection for some using one standard and others using another.

If the Commission authorizes 24-hour leased ITFS operations, then it must also strictly enforce Section 74.931(e)(8) of its Rules which requires that leased operations not cause interference into primary ITFS operations. While typically leased MDS programming is transmitted during the evening and nighttime at 50 or 100 watts, channel loading would significantly increase the potential for interference during prime ITFS instructional hours for signals transmitted typically at only 10 watts. Accordingly, the Commission must take steps to guarantee that 24-hour-a-day commercial programming on ITFS stations does not (a) interfere with existing primary ITFS operations or (b) preclude initiation of service from new ITFS stations which would otherwise be eligible for authorization.

7. <u>Demonstration of Need.</u> The Commission's excess capacity leasing rules for ITFS were designed to promote full use of the spectrum while ensuring that ITFS channels are used for instructional programming purposes. If certain applicants only need one channel for all the instructional programming they wish

to schedule, then they should be granted only one channel; the remaining channels should be reserved for other ITFS eligibles, in accordance with Section 74.902(d). See Wireless Cable Order, 5 FCC Rcd at 6416 (if applicants' "educational programming can be accommodated on a single channel, they should not request additional channels"). To do otherwise would deprive the public of substantial opportunities to receive ITFS service.

If four channels are authorized, then the licensee should be required to use all four channels for their intended purpose. The Commission's Rules provide sufficient flexibility for leasing excess capacity to make leasing worthwhile even if the ITFS licensee must transmit at least 20 hours per week per channel of instructional programming. The "need" for financing should not be allowed to substitute for a demonstration of the "need" for channels.

VI. CONCLUSION

The Commission's proposed channel loading rules are inconsistent with the Communications Act and the purpose of ITFS and contrary to the public interest in that they would effect a <u>defactor</u> reallocation of frequencies reserved to instructional programming to a commercial, entertainment service. For the reasons outlined above, these proposed rules should be rejected.

TRANS VIDEO COMMUNICATIONS, INC.
THE TRUSTEES OF LELAND STANFORD
JUNIOR UNIVERSITY

Ву:

Linda K. Smith
William D. Wallace

CROWELL & MORING 1001 Pennsylvania Avenue, N.W. Washington, D.C. 20004-2595 (202) 624-2500

Their Attorneys

Dated: June 14, 1993

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of June 1993, I have caused to be served a copy of the foregoing Comments of Trans

Video Communications, Inc. and The Trustees of Leland Stanford

Junior University by hand delivery on the following:

Chairman James H. Quello Federal Communications Commission 1919 M Street, N.W., Room 802 Washington, D.C. 20554

Commissioner Andrew C. Barrett Federal Communications Commission 1919 M Street, N.W., Room 844 Washington, D.C. 20554

Commissioner Ervin S. Duggan Federal Communications Commission 1919 M Street, N.W., Room 832 Washington, D.C. 20554

Clay C. Pendarvis
Chief, Television Bureau
Video Services Division
Federal Communications Commission
1919 M Street, N.W., Room 700
Washington, D.C. 20554

William D. Wallace

Welware